



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

ELEMENTARY TRADE TEACHING

BY CHARLES H. MORSE,

Secretary and Executive Officer, Massachusetts Commission on Industrial Education, Boston.

The subject of elementary trade teaching pertains to the most urgent educational need of the present time, viz., industrial education. It is fortunate that we can all agree that there are educational needs, and that our present system of education cannot, from the very nature of the case, be final, for there can be no such thing as finality in education as long as man continues to develop. We catch the cue-word of the most urgent educational need from the very age itself in which we are now living, the Industrial Age. For it is the conditions of this age which have made so plainly evident to us a great shortcoming of our present system of public education.

In reaching, perhaps I may almost say groping, after the ideal system of public education, we have, during the past three decades, successively added to our school system the kindergarten, the manual training and the commercial schools. These, with the exception of the last, have been cultural developments, and **even the commercial instruction is usually treated as a "cultural" subject.**

But even with these additions we still find our free school system so far from being ideal that it sends out into the world at about the age of fourteen years the great majority of its pupils without giving them any idea of life's possibilities, to say nothing of a lack of training which would enable them to enter, with some degree of preliminary preparation, upon lines of productive work. It is not generally realized how completely our present educational system shuts out, and how completely our educators lose sight of, those who drop out of school between the ages of twelve and sixteen. Many of these ex-pupils enter commercial ranks, but the majority join the army of hand-workers and producers.

It is not an ideal free school system which does not guide the child who is to leave school near the upper limit of compulsory school attendance in the selection of a life work, and furnish him with some degree of preparation for entering upon that work. The

free school should at least give the future hand-workers such a preparation for life's work that they may make the most of life's opportunities.

The need of industrial schools is brought about by the demands and conditions of the present day. The youth cannot become a skilled industrial worker without a preparatory training. The old-time apprenticeship system, in which the master workman taught the youth, under his own eye, the necessary work and even the secrets of his trade, has gone by. In fact, it could not exist under the present-day industrial conditions. Still the demand for highly skilled workers has grown enormously and is on the increase. Indeed, so great is the present-day demand that the majority of the youth, at least of young men, who reach the age of self-support enter upon some form of industrial work.

Fortunately, we do not have to discuss from the beginning the propriety of making the professional training of youth a public education matter, for that question was decided in the affirmative by the introduction of commercial instruction in the public schools. If enough pupils are expected to enter upon commercial life to justify public commercial instruction, how much more do the greater number who enter upon industrial life justify industrial instruction at public expense?

It has been found, however, that separate commercial high schools are necessary to meet modern business demands, and all the more will separate industrial schools be needed to meet industrial demands, because trade processes must be taught by skilled specialists, and the general supervision which will suffice even for a commercial school will not be sufficient for an industrial school. In the establishment of industrial schools for youths we are but extending, that is, carrying down, the idea of professional training to a legitimate public education field.

It cannot be too strongly stated that the average pupil who goes to recruit the ranks of the hand-workers merely drifts along almost aimlessly, and is not guided as he should be. It is the rare exception that such a child has a definite object and ambition aroused during his school years. The cause for this state of affairs is to be found both in the home and the school. In the average home the specific future of the child is not dwelt upon, although there may be frequent references to the early time at which he must get

to work and earn his own living and help to support the family. But no objective goal is constantly held up to the child towards which he must shape his course and concerning which he may be gradually acquiring information by observation and from periodicals and books. The average American home which sends recruits to the industrial ranks offers no opportunity for the child to obtain the necessary inspiration, encouragement and accumulation of knowledge to enable him to begin his life's work with a settled purpose "with his eyes wide open."

Even those who continue their school course after leaving the grammar school are too frequently purposeless in their aim, in fact, have no aims. In my own city, where the Latin school, which prepares for college, the high school and the manual training school are all grouped, almost at the gates of Harvard University, I have known of cases where the grammar school graduate has started out from home, on the proper September morning, to begin his secondary school education, but with no idea as to which school he would attend. He finally joins a group of children likewise bound for the secondary school, and follows, perhaps, some individual with whom he may have entered into school-boy conversation, or he follows the largest group into some one of the higher schools, to him it matters not which. Thus *chance* determines his future education and his life's work. But the other group, the five-sixths, who leave school at or about the close of the grammar school years, is the one that deserves special consideration, and it is this class to which the independent industrial schools will appeal.

First the question comes up, "What can the teachers in the elementary public schools do to promote a more satisfactory condition in those schools?" There can be no doubt that more and more it is devolving on the teachers in the lower grades to counsel and guide pupils regarding their life work: and to meet this will require broader views, broader methods and broader sympathies than are found to-day among the rank and file of our teachers. This means that better pay must be provided to attract to the teaching profession men and women of the highest qualifications in both social and mental training; and that a preparation for their profession shall be given them that shall enable them to cope successfully with the practical problems that they must meet. In the selection of a teacher, the environment in which he has been brought up, his views

and tastes, in other words, his personality, must be given as much weight as his intellectual attainments in prescribed lines.

There are needed teachers of warm sympathies and enthusiasms who have sufficient interest to keep in touch with those of their former pupils who have of necessity or choice gone out into the world to begin the doing of their life work. We must take it for granted that those remaining in school and passing on to higher grades are properly looked after. The slight extent to which teachers follow out into the world the pupils who spend their last school year with them is truly lamentable. It is astonishing to find in how few instances even cold and formal statistical records are kept by the schools regarding those pupils who have gone out from the schools.

There should be no real industrial education, as I understand the term, undertaken before the child is fourteen years of age. This means a beginning at about the end of the ninth school year. For nearly two years the term "industrial education" has been used by the Massachusetts Commission on Industrial Education to mean trade education. But this does not mean a trade education as understood by some to signify the instruction given in a school which teaches a degree of manipulative skill in the shortest possible time without regard to a thorough preparation for a trade. In the majority of cases in this country manual training courses are given by men or women who have never learned a trade of any kind, and they deny with much feeling that their courses should be treated as other than cultural. Manual training should be given in all the school grades from the kindergarten up. But do not let us deceive ourselves. Such courses are no more industrial courses than the penmanship courses or the drawing courses now given in our elementary schools are industrial courses.

If I must plan a course that will ultimately lead to a trade, beginning with boys at twelve who are residents of a city, the course for the first two years would not materially differ from the work which would be given in a well-conducted grammar school for children of the same age. But I would have the child of that age study in connection with other subjects the manufacturing establishments of the community. He should know their business organization and general methods of management, their history, the sources of the raw material used, the geography of the regions from which

the raw materials come, the transportation facilities and in a general way, the various processes of manufacture. The markets for the finished product should be studied; also the special qualifications required of the employees, the wages for beginners, the average increase of wages and the possibilities for advancement for an earnest, intelligent worker, as well as the hours of work and the steadiness of employment for each industry.

All this would be given as work in English, geography and history. These investigations of industries should be conducted under the guidance of a teacher who could understand the bearing of such a study upon the boy's mind. All of this work should be included in every grammar school course. If such studies could be carried on under a broad-minded and well-equipped teacher, the boy's point of view would be quite different from that of the fourteen-year-old boy as educated to-day, and he would be prepared to choose an occupation more wisely. I look upon such study not as industrial education, however, but as a line of general education of value to every boy and girl in school. The grammar schools would thus perform a valuable service to those pupils who expect to enter trades, or who leave school at an early age, by directing their attention to local industries.

I will select a textile mill town as an example of what may be done by the public schools to assist pupils to inform themselves regarding the work of the chief industry of the town, and to study it with interest. The teachers should be urged to study local conditions; they should study the mills and the textile industries of their own town and become familiar with their history. Textile museums should be established in the public schools of the textile city, stories should be written on technical subjects relating to textile manufacture, the history of weaving should be taught and a study made of the fibers used in the manufacture of textile goods. As a result of this study of the textile fabrics, written material should be accumulated, which might later be developed into a book to be used in the public schools of the town. The co-operation of manufacturers should be secured by asking the use of their files of textile journals and such technical books on the industry as they have available in their offices. The co-operation of the public libraries in the purchase of books dealing with textile questions should also be obtained. I would suggest, also, that a teacher be detailed, on a leave of absence

from teaching duties for a short time, to prepare a pamphlet on the industry of the town, including the method of textile manufacture as carried on there. Such a general plan, carried out in various cities in which special industries predominate, would stimulate the interest of the boys in local industries. It would be of the greatest value to the communities and to the state.

A year ago I visited a school in Cork, Ireland, which I wish might be seen by every American teacher. Each class-room was completely surrounded by cases with glass doors, containing Irish manufactures in every stage from the raw materials to the finished article. And yet the school was not a trade school. In our present school system we assume that what is proper in the way of training for the boy who is going to college, is proper for the boy who is going into industrial work. The result is that the very large number who must go to work when they become fourteen to sixteen years of age have been educated away from the trades rather than toward them.

Only a generation or two ago the majority of the boys in the Commonwealth of Massachusetts were brought up on the farms. These boys had an opportunity to do with their hands; they did all kinds of farm work; in many instances they repaired the buildings and the kitchen utensils, the stoves and the farm machinery; they had a vocational training at home. The majority of boys in the Commonwealth of Massachusetts to-day are in the cities, and they have not an opportunity equal to that of the boys just mentioned. Everything is done for the boy, and he is not trained to do things for himself. He has not that opportunity for development which was given our youth of Massachusetts but a short time ago.

I have been discussing the boys. Let it not be thought that I have forgotten the girls. Among the women of Massachusetts, for example, not so many years ago, the mother spun and wove; she made the candles; she made the soap; and she did everything about the household. She had a training which was a superior training, and superior women were developed. We are told to-day that in the cities a majority of the people do not cook their own food; it is bought at the bakeshop, and the girls in the majority of instances in the large cities have no opportunity to learn anything in the way of home industry. What is true of Massachusetts is true of the other more thickly settled sections of the country.

If it is a fact that there is no opportunity for the boy to learn a trade in the shop, and the opportunity to learn home-making, domestic science in its best sense, does not exist for the girl, then is it not the duty of the country to provide for that education in the free schools? I think there are opportunities in our schools for the girls to have some training in planning the expenditure of money. Of course, a large percentage of those girls are later to become the heads of families and are the ones to have the expenditure of the money which the boy we are attempting to prepare to make his way in the world will earn for the support of the family. It is the wife and the mother who does the spending of the money, and she should be trained to expend it wisely. She will then be the better able to help develop the highest type of home for the families of our mechanics.

But let us return to the boy. If he goes out to attempt to learn a trade at fourteen years of age, the manufacturer says, "I do not want you in my factory," and he will not employ him except in a position where he is simply an errand boy, and even in those places many of the manufacturers say they do not want the boy. You ask me how I know it. Agents of the Massachusetts Commission on Industrial Education canvassed the state recently; they interviewed a large number of our manufacturers in the skilled industries, and out of some 1,000 men interviewed who employ thousands upon thousands of other men in the great manufacturing establishments of the state, there were very few who did not say, "We do not want the fourteen-year-old boy; he is in the way; he gets on our nerves."

We know how to sympathize with those men. We know what the fourteen-year-old boy is. We know that he is a good deal of an animal, he is irresponsible in many ways, very largely through the fault of the home, but the school must take part of this responsibility. Now the boy between the age of fourteen and sixteen, when he is not wanted in the industries, ought to be in school. The school that I have in mind is a school where the foundations of the trade can be laid for him better than they can be laid in the factory.

The boy would be given courses in woodworking and ironworking for one-half of each school day. This should be supplemented with other subjects, including drawing, arithmetic, simple bookkeeping, industrial geography and industrial history, as well as a continued study of local industries. At the sixteenth year such a boy

would be ready to study his chosen trade with a foundation for that trade which could not be obtained in any shop in our American industries. These last two years would be taken either in a school, under shop conditions, one-half of the time in the class-room and one-half in the school shop, or by a combination of part-time in the school and part-time in a commercial shop. In the former case, the boy should remain in the school eleven months of the year, eight hours per day, except Saturday, when the school should close at noon. There should be no protracted vacations except that during the month of August. One-half of the time should be given to shop-work, and the balance to the study of such subjects as have a bearing on the chosen trade, such as its history, drawing, mathematics, chemistry and physics; and, in addition to these, citizenship should be studied.

Under the part-time system the boy would take these latter courses along with work in a commercial shop, by working in the industry for a week, for example, and then attending the industrial school for a week. Thus the theory and practice of the trade would go hand in hand and the boy would also be helping to support himself and his family. By such a system of trade education our boys would ultimately contribute more largely towards the prosperity of our country than is possible at present. Such courses of instruction are proving eminently satisfactory in numerous European countries, and the graduates of such schools are in demand after a shortened apprenticeship and are receiving the prevailing highest wages.

The problem for the boys who will carry on our farms is somewhat different from that just stated for the boys who intend entering the manufacturing industries. That they should be given preparation for their life's work in an agricultural school and not in a high school with some agricultural courses attached, I have no doubt. Early last spring the farmers of Massachusetts, through the state grange, appeared at the State House in opposition to a bill providing for agricultural and industrial courses in the existing high schools. Many of the superintendents of the state argued in favor of the bill. The farmers said most emphatically, "This is not what we want." They said, "Give us *independent agricultural schools*."

We would all agree that some instruction in mechanical trades should be made a part of the work of an agricultural school. Much farm machinery must be cared for by these boys, and farm carpentry

should not be neglected. In these independent agricultural schools the girls should take many of the agricultural courses, together with domestic science and home dressmaking and millinery. The school should be planned as a finishing school for the future farmers, but provision should be made for those who can continue their education. Such schools should fit the boys for the State Agricultural College, and both the boys and the girls for the State Normal School.

For the city girl who must begin at an early date to earn her living the problem is most difficult. We are informed by those who have made a study of this question that the average time a girl remains in productive industry is about five years. The question of educating a girl, therefore, for the industry in which she is likely to remain for so short a time must be considered as a distinct problem. These girls are destined, in the large majority of cases, to become the wives of our mechanics and the mothers of the coming generation of city dwellers. I can but feel that the school training of these girls to earn their own living for about five years should be accompanied by a large share of instruction which will fit them for the work of homemaking which they are to pursue for the forty additional years of life. Certainly, the choice of all would be to retain in school for a much longer time those girls who now leave at about fourteen years of age, and give them a thorough preparation for homemaking as well as for a trade corresponding in thoroughness to that suggested for the boys, and I sincerely hope the problems may be worked out which will make this the ultimate aim of the girl's continuation school.

There is danger, however, in the working out of these problems that educators may rush blindly into this new field and that the new education thus organized will not be as effective as the old. The public demands changes, and the existing school authorities are making changes in an effort to meet this demand with no clear conception of the effect of these changes in the school courses. The public must be patient and allow those at work upon this problem reasonable time in which to prepare plans for a well-balanced public school education which will meet the needs of all.